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P21645.A01

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Gert HEINRICH et al

Serial No. : 09/994,774

Filed : November 28, 2001

For : RUBBER MIXTURE FOR TIRE TREAD RUBBER



Group Art Unit: 1714

Examiner: Unknown

EL:9  
3/11/02  
#5

INFORMATION DISCLOSURE STATEMENT

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

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16 1700

Sir:

Pursuant to 37 C.F.R. 1.56 and 37 C.F.R. 1.97-1.98, Applicants hereby direct the Examiner's attention to the following documents:

- (a) EP 1 029 823 A2 (KABUSHIKI KAISHA TOYOTA ...), 23 August 2000.
- (b) U.S. Patent No. 5 360 685 (TANAKA), 1 November 1994.
- (c) U.S. Patent No. 6 034 164 (ELSPASS et al.), 7 March 2000. Applicants note that this document is cited and discussed in the instant application on pages 4/5, paragraph [0012].
- (d) U.S. Patent No. 5 717 000 (KARANDE et al.), 10 February 1998.
- (e) EP 1 028 130 A1 (THE GOODYEAR TIRE & RUBBER COMPANY), 16 August 2000.
- (f) M. Zanetti, S. Lomakin, and G. Camino, "Polymer layered silicate

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nanocomposites”, Macromol. Mater. Eng. 279, pp. 1 - 9 (2000). Applicants note that this document is cited and discussed in the instant application on page 2, paragraph [0006].

(g) WO 97/00910 (EXXON RESEARCH ...), 9 January 1997. Applicants note that this document is cited and discussed in the instant application on page 3, paragraph [0008].

(h) U.S. Patent No. 5 576 372 (KRESGE et al.), 19 November 1996. Applicants note that this document is cited and discussed in the instant application on pages 3/4, paragraph [0009].

(i) U.S. Patent No. 6 103 817 (USUKI et al.) 15 August 2000. Applicants note that this document is cited and discussed in the instant application on page 4, paragraph [0010].

(j) J. Schnetger, Encyclopedia of Rubber Technology [Lexikon der Kautschuk-Technik], Hüthig Buch Verlag, 2<sup>nd</sup> Edition, Heidelberg, 1991, pp. 42-48. Applicants note that this document is cited in the instant application on page 12, paragraph [0043].

Applicants note that the above documents (a) to (e) were cited in an Office Action from the German Patent Office regarding German Patent Application No. 100 59 236 which is a family member of the instant application. In said Office Action the following is stated:

In this Action the following references are cited for the first time (...):

- (1) EP 1 029 823 A2
- (2) US 5 360 685 A

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- (3) US 6 034 164 A
- (4) US 5 717 000 A
- (5) EP 1 028 130 A1

1. It is to be noted that the proviso “for tire tread rubber” does not limit the composition.

2. Compositions having the features of claims 1, 5 and 7 are described in (1) and (2) (cf. (1), page 4, lines 19 to 35, page 10, lines 52 to 56, Table 2 and Figure 1 A, according to which it belongs to the prior art to employ  $\text{NR}_4^+$  modified layered silicates without further expansion, and (2), columns 3/4, column 5, lines 35 to 52). Claim 2 relates to conventional amounts which, additionally, are comprised by (2). Due to the exchange capacities which are conventional and described in (1), the compositions of (1) and (2) necessarily also comprise the features of claims 3 and 4, moreover, these parameters are rendered obvious by (3), column 3. The use of the compound according to claim 6 according to the application is rendered obvious by (4), column 2, lines 53/55.

The additional claims relate to the applications of tire tread rubbers as well as the further additives that are rendered obvious by (5) (cf. (5), page 4 and page 2, line 25).

[...]


The subject matters of these claims are, therefore, not based on an inventive step.

Copies of the above-listed documents are enclosed together with a completed copy of the PTO-1449 Form listing these documents. Accordingly, the Examiner is requested to consider these documents and to indicate such consideration by returning a signed and initialed copy of the PTO-1449 Form with the first official communication.

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Should there be any questions or comments, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully submitted,  
Gert HEINRICH et al.

  
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February 28, 2002  
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Form PTO-1449

U.S. Department of Commerce  
Patent and Trademark OfficeAtty. Docket No.  
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09/994,774INFORMATION DISCLOSURE STATEMENT  
BY APPLICANT

(Use several sheets if necessary)

Applicant  
Gert HEINRICH et al.Filing Date  
November 28, 2001Group  
1714

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	5 3 6 0 6 8 5	11/01/94	TANAKA			
	6 0 3 4 1 6 4	03/07/00	ELSPASS et al.			
	5 7 1 7 0 0 0	02/10/98	KARANDE et al.			
	5 5 7 6 3 7 2	11/19/96	KRESGE et al.			
	6 1 0 3 8 1 7	08/15/00	USUKI et al.			

## FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
1 0 2 9 8 2 3	08/23/00	E.P.O.			
1 0 2 8 1 3 0	08/16/00	E.P.O.			
9 7 / 0 0 9 1 0	01/07/97	W.I.P.O.			

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

1	M. Zanetti, S. Lomakin, and G. Camino, "Polymer layered silicate nanocomposites", Macromol. Master. Eng. 279, pp. 1-9 (2000).
2	J. Schnetger, Encyclopedia of Rubber Technology [Lexikon der Kautschuk-Technik], Hüthig Buch Verlag, 2nd Edition, Heidelberg, 1991, pp. 42-48.

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.